

REMARKS

Claims 1-45 are all the claims pending in the application.

Claims 4-7 and 17 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor, at the time the application was filed, had possession of the invention.

Claims 1-45 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.

Claims 1-3, 14, 15, 21, and 24-26 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Wood et al. (US 5,851,186).

Claims 8, 10, 11, and 13 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Wood et al. in view of Falsetti et al. (US 5,445,029). Claims 9, 12, 22, 23, 27, and 28-32 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Wood et al. in view of Shinomura et al.

Applicant responds to the rejections as set forth below.

Regarding the § 112, first paragraph, rejection Applicant herein amends claims 4, 6, and 17 as shown in the Appendix to clarify that the abnormal point determination means determines whether the probe is abnormal. These amendments are believed to be self-explanatory and to overcome the rejection. Also, Applicant amends claim 20 to change its dependency, so that claim 20 is only dependent from claim 17. Thus, claims 4-7 and 16-20 are in form for allowance.

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The § 112, second paragraph, rejection is based on the use of the terms “data,” “component,” and “at least.” With respect to the use of the terms “data” and “component,” Applicant submits that the rejection of the claims based on the use of these terms is inappropriate and should be removed for the following reasons. The term “data” is used in an appropriately broad manner in independent claim 1, but in dependent claim 2, for example, the scope of the term “data” is narrowed. Regarding the term “component,” Applicant directs the Examiner to the paragraph bridging pages 28 and 29 of the present specification, which discusses the illustrative, non-limiting embodiments of components of the system main body.

Also, according to the Manual of Patent Examining Procedure (M.P.E.P):

When the examiner is satisfied that patentable novelty is disclosed and it is apparent to the examiner that the claims are directed to such patentable subject matter, he or she should allow claims which define the patentable novelty with a reasonable degree of particularity and distinctness. Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire. Examiners are encouraged to suggest claim language to applicants to improve the clarity or precision of the language used, but should not reject claims or insist on their own preferences if other modes of expression selected by applicants satisfy the statutory requirement. (emphasis in original) (§ 2173.02).

Furthermore, the “breadth of a claim is not to be equated with indefiniteness.”
(§ 2173.04) The fact that a claim is broad does not necessitate a rejection for indefiniteness

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reasons. In non-chemical arts, a claim may generally be written as broadly as permitted by the prior art.

Regarding the phrase “at least” used in claim 16 at line 8, the use of this phrase is a commonly used phrase in patents, the meaning of which is clear to one of ordinary skill in the art. In claim 16, the phrase “at least” is used to indicate which of the claimed data is being collected. In particular, at least one of the following types of data are collected in the collecting step: 1) data output from the ultrasonic transmission/reception circuit and 2) data output from the waveform processing circuit. Thus, the use of the phrase “at least” is believed to be definite.

Claims 1-3, 14, 15, 21, and 24-26 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Wood et al. Claim 1 is amended herein to add the limitation of the data provided by the multiple ultrasonic inspection systems being stored in the single data storage section. In the present invention, the host computer includes a data collection means for collecting data provided by the multiple ultrasonic inspection systems. The data provided by the multiple ultrasonic inspection systems is stored in a single data storage section. Wood et al. fail to disclose or suggest these features of the present invention. The Examiner asserts that Wood et al. teach multiple ultrasonic systems in Fig. 1 and Fig. 15. However, Wood et al. only disclose a single system 10 in Fig. 1.

Wood et al. disclose a medical diagnostic system making diagnostic information and operation accessible at remote locations. In this medical diagnostic system, one-to-one communication is essential. It is not necessary to have multiple ultrasound systems corresponding to a single host computer.

By contrast, in the present invention, it is essential to have multiple ultrasonic systems to inspect a large specimen. The present invention, by having the above features, can facilitate the management of the data and the failure analysis of the multiple ultrasonic systems. Further, the present invention can simplify the ultrasonic systems and can reduce the cost of the whole system. Therefore, Wood et al. fails to disclose or suggest each of the features of the present invention.

Thus, claim 1 and its dependent claims 2-15 are believed to be allowable over the prior art.

Claim 21 claims an external storage medium. Wood et al., on the other hand, fails to teach or suggest such a limitation. Instead, Wood et al. disclose a storage medium 24 which is internal to the main body of the ultrasound system 10 (see FIG. 1). Such an internal storage medium is disclosed in the prior art, from which the present invention is distinct. By providing the external data storage section of the present invention, which is part of the management system rather than part of the system main body, the load on the ultrasonic inspection system is greatly reduced as compared to the conventional ultrasonic inspection system. Accordingly, claim 21 and its dependent claims 22-25 and 34-38 are believed to be allowable.

Claim 26 is amended herein to claim that each of the ultrasonic probes is provided with its own storage device. Wood et al. do not disclose this limitation of amended claim 26. Instead, Wood et al. disclose a common storage medium 24 for all probes. Therefore, claim 26 and its dependent claims 27-30 and 39-45 are believed to be allowable over the prior art.

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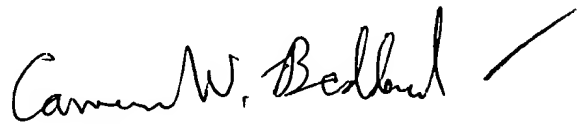
Claims 8, 10, 11, and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wood et al. in view of Falsetti et al. As noted above, Wood et al. fail to teach or suggest all of the limitations of amended claim 1. Since Falsetti et al. fail to make up for these deficiencies, claims 8, 10, 11, and 13 are believed to be allowable over the prior art as well.

With respect to the rejection of claims 9, 12, 22, 23, 27, and 28-32, Applicant submits herewith certified English translations of the foreign priority documents, thereby perfecting priority and removing Shinomura as a reference by establishing an effective filing date prior to that of Shinomura. Thus, claims 9, 12, 22, 23, 27, and 28-32 are allowable over the prior art.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Cameron W. Beddard
Registration No. 46,545

SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, D.C. 20037-3213
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

Date: July 11, 2002



APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Twice Amended) An ultrasonic inspection system management system comprising:
multiple ultrasonic inspection systems each [consisting of] including a probe and a
system main body,
a host computer,
a transmission line for connecting said multiple [one or more] ultrasonic inspection
systems and said host computer, and
a data storage section, characterized in that said host computer comprises data collection
means for collecting data provided by said multiple [one or more] ultrasonic inspection systems
via said transmission line and storing the data in said data storage section[.];
wherein the data provided by said multiple ultrasonic inspection systems is stored in the
single data storage section.

4. (Amended) The ultrasonic inspection system management system as claimed in claim
1 wherein the data is first test data provided when said probe of a specific one of said ultrasonic
inspection systems is connected to said system main body and second test data provided when
said probe is disconnected from said system main body and wherein said host computer further
includes command signal output means for outputting command signals for obtaining the first
test data and the second test data and abnormal point determination means for determining

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whether or not said probe [an abnormal point is contained] in said specific ultrasonic inspection system is abnormal based on the first test data and the second test data.

6. (Amended) The ultrasonic inspection system management system as claimed in claim 1 wherein at least one of said ultrasonic inspection systems comprises inspection system abnormal point determination means for determining whether or not said probe [an abnormal point is contained] in said ultrasonic inspection system is abnormal based on first test data provided when said probe is connected to said system main body and second test data provided when said probe is disconnected from said system main body and wherein the data collected by said data collection means of said host computer is data of a determination result of said inspection system abnormal point determination means.

17. (Amended) In an ultrasonic inspection system comprising a probe and a system main body comprising an ultrasonic transmission/reception circuit for exciting said probe and receiving a signal therefrom, a waveform processing circuit for processing a signal from said ultrasonic transmission/reception circuit, and a control section for controlling operation of said ultrasonic transmission/reception circuit and said waveform processing circuit, an ultrasonic inspection system diagnosis system comprising positioning means for making said probe opposed to a test object with said probe connected to said ultrasonic transmission/reception circuit, probe excitation means for exciting said probe with said probe opposed to the test object, first data collection means for collecting at least one of data output from said ultrasonic transmission/reception circuit and data output from said waveform processing circuit when said probe is excited by said probe excitation means, test signal output means for feeding a test signal into said ultrasonic transmission/reception circuit with said probe disconnected from said

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ultrasonic transmission/reception circuit, second data collection means for collecting at least one of data output from said ultrasonic transmission/reception circuit and data output from said waveform processing circuit when a test signal is output by said test signal output means, and determination means for determining whether or not [an abnormality is contained] said probe in said ultrasonic inspection system is abnormal based on the output data collected by said first data collection means and said second data collection means.

20. (Amended) The ultrasonic inspection system diagnosis system as claimed in claim 17[, 18, or 19] further [including] comprising a display section for displaying a determination result of said determination means.

26. (Amended) A ultrasonic inspection system having a ultrasonic probe data management function for transmitting and receiving ultrasonics with one selected from ultrasonic probes and inspecting a specimen based on a received ultrasonic signal, characterized in that each of said ultrasonic probes is provided with its own [a] storage device for storing general characteristic data of said ultrasonic probe.